

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

9/27/00  
A3  
1. (Currently Amended) A computer-implemented method of identifying key images in a document, comprising:

extracting one or more document keywords from the a document considered important in describing the document;

collecting one or more images associated with the document, each image having a location in the document; including information describing each image;

generating a proximity factor for each image pair of the one or more images collected from the document and each document keyword the one or more document keywords, the proximity factor that reflects reflecting the a degree of correlation between the image and the document keyword of the pair; and

determining the importance of each image in the document according to an image metric that combines the proximity factors for each document keyword and image pair.

2. (Original) The method of claim 1 further comprising presenting the images within the document determined to be important on a display device.

3. (Original) The method of claim 1 further comprising:

ordering the document keywords according to an ordering criterion; and

weighting the proximity factor associated with each document keyword and image pair based on the order of the document keyword.

4. (Original) The method of claim 3 wherein the frequency that each document keyword appears in the document determines the ordering criterion used to order the document keywords.
5. (Currently Amended) The method of claim 3 wherein the document has a subject matter and the ordering criterion orders the document keywords according to their relationship with the subject matter of the document.
6. (Currently Amended) The method of claim 1 ~~wherein generating a proximity factor further comprises~~ comprising identifying image text used to describe associated with each image of the one or more images.
7. (Currently Amended) The method of claim 6 wherein identifying ~~the image text further~~ comprises:  
43        scanning a bit-mapped representation of the image for text information; and  
             converting the bit-mapped representation of the text information into image text.
8. (Currently Amended) The method of claim 6 wherein ~~the images include metadata having text information and~~ identifying ~~the image text further~~ comprises:  
             searching ~~the~~ metadata information associated with the image for text describing the image.
9. (Original) The method of claim 8 wherein the metadata information is compatible with hypertext markup language (HTML).
10. (Currently Amended) The method of claim 6 wherein generating the proximity factor for an image and a document keyword of a document keyword and image pair further comprises lexically analyzing the image text associated with ~~each~~ the image and ~~each~~ the document keyword to determine the degree of correlation between ~~an~~ the image and ~~a~~ the document keyword.

11. (Currently Amended) The method of claim 6 wherein generating the proximity factor for an image and a document keyword of a document keyword and image pair further comprises performing a phonetic comparison between the image text associated with ~~each the~~ image and ~~each the~~ document keyword to determine the degree of correlation between ~~an the~~ image and a the document keyword.

12. (Currently Amended) The method of claim 1 wherein generating the proximity factor for an image and a document keyword of a document keyword and image pair further comprises:

identifying the location of the image in the document; and  
measuring the distance between the image in the document and a the document keyword.

13. (Currently Amended) The method of claim ~~11-12~~ wherein generating the proximity factor for an image and a document keyword of a document keyword and image pair further comprises:  
determining the correlation between ~~each the~~ document keyword and ~~an the~~ image according to the distance between the document keyword and the image.

14-26. (Canceled)

27. (Currently Amended) An apparatus for identifying key images in a document, comprising:

means for extracting one or more document keywords from the a document considered important in describing the document;

means for collecting one or more images associated with the document, each image having a location in the document; including information describing each image;

means for generating a proximity factor for each image pair of the one or more images collected from the document and each document keyword the one or more document keywords, the proximity factor that reflects reflecting a the degree of correlation between the image and the document keyword of the pair; and

means for determining the importance of each image in the document according to an image metric that combines the proximity factors for each document keyword and image pair.

28. (Original) The apparatus of claim 27, further comprising:

means for ordering the document keywords according to an ordering criterion; and

means for weighting the proximity factor associated with each document keyword and image pair based on the order of the document keyword.

29. (New) A computer program product, tangibly embodied in a machine-readable storage device, for identifying key images in a document, the product comprising instructions operable to cause a computer to:

extract one or more document keywords from a document;

collect one or more images associated with the document, each image having a location in the document;

generate a proximity factor for each pair of the one or more images and the one or more document keywords, the proximity factor reflecting a degree of correlation between the image and the document keyword of the pair; and

determine the importance of each image in the document according to an image metric that combines the proximity factors for each document keyword and image pair.

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30. (New) The product of claim 29 further comprising instructions to:  
present the images within the document determined to be important on a display device.
31. (New) The product of claim 29 further comprising instruction to:  
order the document keywords according to an ordering criterion; and  
weigh the proximity factor associated with each document keyword and image pair based on  
the order of the document keyword.
32. (New) The product of claim 31 wherein the frequency that each document keyword appears  
in the document determines the ordering criterion used to order the document keywords.
33. (New) The product of claim 31 wherein the document has a subject matter and the ordering  
criterion orders the document keywords according to their relationship with the subject matter of  
the document.
34. (New) The product of claim 29 further comprising instructions to identify image text  
associated with each image of the one or more images.
35. (New) The product of claim 34 wherein the instructions to identify image text comprises  
instructions to:  
scan a bit-mapped representation of the image for text information; and  
convert the bit-mapped representation of the text information into image text.
36. (New) The product of claim 34 wherein the instructions to identify image text comprises  
instructions to:  
search metadata information associated with the image for text describing the image.

37. (New) The product of claim 36 wherein the metadata information is compatible with hypertext markup language (HTML).

38. (New) The product of claim 34 wherein the instructions to generate the proximity factor for an image and a document keyword of a document keyword and image pair further comprises instructions to lexically analyze the image text associated with the image and the document keyword to determine the degree of correlation between the image and the document keyword.

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39. (New) The product of claim 34 wherein instructions to generate the proximity factor for an image and a document keyword of a document keyword and image pair further comprises instructions to perform a phonetic comparison between the image text associated with the image and the document keyword to determine the degree of correlation between the image and the document keyword.

40. (New) The product of claim 29 wherein instructions to generate the proximity factor for an image and a document keyword of a document keyword and image pair further comprises instructions to:

- identify the location of the image in the document; and
- measure the distance between the image in the document and the document keyword.

41. (New) The product of claim 40 wherein instructions to generate the proximity factor for an image and a document keyword of a document keyword and image pair further comprises instructions to:

- determine the correlation between the document keyword and the image according to the distance between the document keyword and the image.

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